

## CLAIMS

1. A magnetomechanical system for recoil's reduction in a gun upon firing, which consists of successive compression springs cooperated with one cylinder and with one axle which supports a magnet, and is distinguished by
  - 5    a) the spring (5) of which the left edge abuts on the slide (K) and its right edge abuts on the flange (T) of the transversal cylinder's (1) exterior diameter ; and which cylinder (1) is separated, by a diaphragm (Y) in two chambers, the chamber (A) and the chamber (B), wherein chamber (A), the spring (2) is positioned, and wherein through chamber (A) and through chamber (B) is passing the axle (4) in the 10 right edge of which axle (4), the round nut (7) is screwed, and which round nut (7), on the one hand, holds the spring (2) in the chamber (A), and on the other hand, it is being a part of the fixed gun's frame, while the axle (4) close to the middle of its length is formed to the collar (8), which collar (8) is locked by the diaphragm (Y);
  - 15    b) the spring (3) is positioned in chamber (B) which spring (3) is smaller in length than the chamber's (B) length, the entrance of which chamber (B) is locked by the transversal set screw (6), through which set screw (6), the axle's (4) extension (P) is coming and on the left edge of which extension (P) the magnet (M) is screwed and is locked with the nut (E), by the use of one base (9), which base (9) is locked 20 on the frame of the gun, and on which base (9) the magnet (M) is fixed without using anymore the axle's (4) extension (P);
  - c) the magnet's part is to permanently attract, the slide (K), and the cylinder (1) with direction opposite of the slide's (K) and of the cylinder's (1) recoil direction;
  - d) upon firing, the pressure of the gases touches the point, which is critical for the 25 attractive power that the magnet (M) has, for the attraction of the slide (K) and of the cylinder (1), causing to them short time lag before they start to recoil:
  - e) the pre-mentioned time lag causes the maximum expansion of gases from the gun barrel's muzzle, hence the slide (K) recoils more gently, a bigger initial speed is given to the bullet and thereby the bullet gets longer firing range;
  - 30    f) the spring (3) functions in chamber (B) as an inertia system while absorbs the rest of the slide's (K) recoil energy, decelerating any further recoil of the slide (K), because the most of the slide's (K) energy, was absorbed from the progressive compression of the spring (5) and the spring (2);

g) the final form of the magnetomechanical system may differ to its component's shape, and may also differ to the springs' resistance force and quantity so as to fit to any different gun type.

5 2. A magnetomechanical system for the recoil's reduction in a gun upon firing, which consists of successive springs cooperated with one cylinder and with one axle, which supports a magnet according to claim -1-, and is distinguished by

- a) the removal of the extension (P) of the axle (4) or the removal of the base (9), therefore the magnet's (M) removal, lets the mechanical system of the invention  
10 be operational, but without the bullet's firing range being increased;  
b) its mechanical parts are formed properly, so that this mechanical system may fit to any different gun type.